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ABSTRACT

This document is intended to give health care providers interdisciplinary information concerning drugs, nutrition, and exercise to help them enhance health maintenance of the elderly. Prepared as part of Project NNED, (Nursing, Nutrition, Exercise, and Drugs), an integrated curriculum for health care providers of the elderly, the document includes four pages of tables and explanations that demonstrate the effects of nutrition, exercise, and drugs on body systems of the elderly. In addition, two case studies are presented. The document also includes a list of project faculty and staff; paragraphs that name the sponsors and justify the project; a synopsis of the project; pre- and post-tests intended to gauge the knowledge of caregivers before and after instruction incorporating the tables and case studies; an abstract describing the project; and a list of program goals. (CML)

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ED310286

AN INTEGRATED CURRICULUM OF NURSING, NUTRITION, EXERCISE, AND DRUGS FOR HEALTH CARE PROVIDERS OF THE ELDERLY (PROJECT NNED)

Funded by: Area Health Education Center Program
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Implemented by: Summit-Portage Area Health Education Network
in conjunction with the
Northeastern Ohio Universities College of Medicine

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NORTHEASTERN OHIO UNIVERSITIES COLLEGE OF MEDICINE (NEOUCOM)

REGION III, AREA HEALTH EDUCATION CENTER PROGRAM (AHEC)

Sponsors: The Summit-Portage Area Health Education Network Center in cooperation with Northeastern Ohio Universities of Medicine, Office of Geriatric Medicine and Gerontology

Program: An Integrated Curriculum of Nursing, Nutrition, Exercise, and Drugs for Health Care Providers of the Elderly (Project NNED)

JUSTIFICATION

A large body of articles and supportive research indicates health maintenance can be greatly enhanced if health care providers have more knowledge and greater sensitivity to drug use and the nutritional and exercise needs of the elderly.

Much of the current professional health related curriculi are quite limited in the teaching of current relationships among nutritional deficits, potential drug interaction, and exercise (for rehabilitation, maintenance, and socio-psychological benefits).

PROGRAM ACTIVITY

The Region III AHEC Program and the S.P.A.H.E.N Center, working in cooperation with the NEOUCOM Office of Geriatric Medicine and Gerontology, convened the appropriate faculty for inter-disciplinary discussion and resultant integrated curriculum development in the areas of medicine, nursing, nutrition, exercise, psychology and drug interaction for the elderly.

DOCUMENTS

Following are tables that relate the body systems to nutrition, exercise, and drugs. Based on the literature, the tables were developed to demonstrate effects of the use of nutrition, exercise, and drugs on these systems of the elderly. The P and T indicate the use of drugs as treatment (T) and/or prevention (P). Arrows (----->) mean that there is no nutritional treatment until there is some drug treatment. Usually these nutritional treatments were used to ameliorate the negative side effects of drugs. The X with a question mark (X?) means that there was some question about good documentation for treatment. As can be seen, these tables can be exceptionally useful to the development of integrated curriculi and/or models.

Information from the tables was used in demonstrating the effectiveness of case-study reviews and evaluations in a team teaching method analogous to an interdisciplinary staffing approach. Samples of case studies are presented following the tables. The information and the case study approach were presented to two separate groups of Visiting Nurses (rural and urban) These nurses were pre-tested and post-tested using the evaluation form enclosed. Both written evaluations and personal comments and the incorporation of ideas in practice supported the perceived value of this approach by practitioners in the field. Virtually all comments suggested the need to further integrate

the curriculum within the basic health education environment. Teaching nutrition, exercise, and drugs separately was not deemed to be an effective, insightful, or useful versus teaching in an integrated manner.

Exercise
Nutrition *
Drug +

Attachment E

SUMMIT PORTAGE AREA HEALTH EDUCATION NETWORK

Project NNED — May 12, 1983

CONTENT ORGANIZATION	DRUGS P	DRUGS T	NUTRITION P	NUTRITION T	EXERCISE P	EXERCISE T
I. Cardiovascular						
° + * A. Normal changes						
1. Aorta	X	X	X	X	X	X
2. Heart valves	X	X	X	X	X	X
3. Vascular changes	X	X	X	X	X	X
4. Myocardium	X	X	X	X		
5. Cardiac output	X	X	X	X		
a. Stroke volume	X	X	X	X		
b. Heart rate	X	X	X	X		
c. Regional blood flow	X	X				
° + * B. Common disorders						
1. Hypertension		X		X		X
2. Coronary artery disease		X		X		X
3. Congestive heart failure		X		X		X
4. Valvular disease		X		X		X
5. Arteriosclerosis		X		X		X
6. Cerebrovascular accident		X		X		X
7. Thrombophlebitis		X		X		X
8. Arrhythmias		X		X		X
9. Blood cell anemia		X		X		
II. Respiratory System						
° + * A. Normal changes						
1. Musculoskeletal	X	X	X	X	X	X
2. Bronchus	X	X	X			
3. Lungs	X				X	X
° + * B. Common disorders						
1. Chronic obstructive pulmonary disease		X				X
a. bronchitis						
b. emphysema						
c. asthma						
2. Pulmonary edema		X		X		
3. Pneumonia		X		X		
• 4. Chronic respiratory acidosis		X				
III. Gastrointestinal System						
+ * A. Normal changes						

	DRUGS		NUTRITION		EXERCISE	
	P	T	P	T	P	T
1. Decline of taste buds			X	X		
2. Decreased grinding surface of teeth				X		
3. Decreased tone and motility of esophagus, stomach, and intestine		X	X	X	X	X
4. Decrease in salivary gland secretion		X		X		
5. Decrease in HCl		X		X		
6. Atrophy			X	X		
7. Lipase reduction and diminution of digestive secretions		X		X		
8. Decline in glucose		X		X	X	X
9. Decreased absorption rate		X		X		
° + B. Common disorders						
1. Peridontal disease		X		X		
2. Dysphagia				X		
3. Hiatus hernia		X		X		
4. Malnutrition		X		X		
5. Anemia		X		X		
6. Constipation		X		X		X
7. Fecal impaction		X		X		X
8. Intestinal obstruction				X		
9. Diverticulosis		X		X		
10. Cancer of GI tract		X		X		
IV. Genitourinary System						
* + A. Normal changes						
1. Reduction in number and size of nephrons				X		
2. Decrease in glomerular filtration				X		
3. Decrease in execretory and reabsorption capabilities of renal tubules				X		
4. Decrease in bladder/ muscle tone		X				
5. Prostate enlargement --male genital tract		X				
6. Atrophy of tissues-- female genital tract		X				
* + B. Common disorders						
1. Urinary tract infection		X	→	X		

	DRUGS		NUTRITION		EXERCISE	
	P	T	P	T	P	T
2. Urinary incontinence		X				X
3. Urgency and frequency				(X?)		
4. Urinary retention		X				
5. Benign prostatic hypertrophy		X				
V. Musculoskeletal System						
° + * A. Normal changes						
1. Atrophy of muscles			X	X	X	X
2. Spinal kyphosis		X	X		X	X
3. Reduction in height					X	
4. Decrease in movement and resting tremor		X				X
5. Muscle cramps		X	X	X	X	X
6. Decreased sphincter control		X		X	X	X
7. Diminished tendon jerks		--		--		--
8. Increased brittleness of bones	X	X	X	X	X	X
9. Degenerative joint changes		X	X	X	X	X
° + * B. Common disorders						
1. Osteoarthritis		X				X
2. Rheumatoid arthritis		X				X
3. Gout		X		(X?)		
4. Osteoporosis		X		X		X
5. Hip fracture				X		X
6. Hallux valgus		X				
VI. Nervous System						
* + A. Normal changes						
1. Loss of total bulk of brain substance		(X?)		(X?)		
2. Decrease in speed of conduction of nerve impulse		(X?)		(X?)		
3. Impairment in proprioception						X
* + B. Common disorders						
1. Organic brain syndrome (acute)		(X?)		X		

	DRUGS		NUTRITION		EXERCISE	
	P	T	P	T	P	T
2. Parkinsons disease		X →		X		
3. Cerebrovascular accident		X		X		X
4. Presenile dementia						
(a) Alzheimer's		(X?)				
(b) Pick's						
VII. Endocrine System						
* A. Normal changes						
+						
1. Decrease in hormones		X	X			
2. Changes in anterior pituitary gland						
(a) TSH	X	X	X	X		
(b) ACTH		X				
3. Reduction in thyroid gland		X		X		
4. Change in adrenal cortex (decrease amount of ACTH)		X				
5. Decline in glucose tolerance		X		X	X	X
* B. Common disorders						
+						
1. Diabetes mellitus		X		X		X
VIII. Unclassified						

*Arrows mean that there is no nutrition treatment until there is some drug treatment.

*(X?) indicates that there is some question as to treatment documentation.

P=Prevention
T=Treatment

jh
5/16/83

CASE STUDY #3

This individual is a 73 year old retired high school teacher, lives with his wife and daughter in a two story older home. This individual is 5'6" and weighs 136 pounds.

HEALTH HISTORY

1971 CVA with Left Hemiparesis

1975 Parkinson's Disease

1976 BPH with TUR

1980 Recurrent CVA

1981 Release of contracture left shoulder, UTI, Hypertension

1982 Release of contracture left elbow, Organic Brain Syndrome

CLINICAL COURSE

Has been admitted to Visiting Nurse Service five times since 1978. Seen by PT, OT, RN, HHA, ST, Social Worker (SW), Registered Dietitian (RD), Psychiatric Mental Health Clinical Nurse Specialist (CNS).

1. Nursing followed him for altered cardiopulmonary status, recurrent constipation, medication and diet teaching, assistance in activities of daily living, periodic open skin areas and urinary incontinence.
2. CNS followed for altered thought processes (paranoid ideation) and trust, altered reality orientation, altered comfort level regarding decreased intellectual functioning complicated by refusal to take prescription medication and follow through with physician.
3. RD followed for inadequate nutritional intake. She instructed in use of Carnation Instant Breakfast to supplement meals and the use of fats and oils to increase caloric intake.

4. PT evaluated this individual seven times, and OT evaluation was performed two times. The physician consistently referred for treatment of left lower extremity contractures and for ambulation training. Each PT evaluation showed little or no improvement and little motivation. This individual needed assistance with transfers and balance and coordination exercises. Wife was instructed in passive and active range of motion exercises along with supervision of gait. Patient is ambulating with quad cane on right most of the time with varying assistance when up. Patient refused to do own ADL's and needed assistance with transfers most of the time. The PT discharged visits for reasons of no progress, patient refusal and for admissions to a rehabilitation hospital. VNS Physical Therapist did an evaluation on each discharge from the rehabilitation hospital finding little change. The patient had contracture releases done on left shoulder with little to no functional improvement. When patient last seen by PT, was ambulating with quad cane on right with ataxia and low endurance. Patient refused further rehabilitation.

This individual's weight has increased to 146 pounds, patient now medication compliant, psychiatric symptoms have cleared, and this individual is now following through with physician appointments. CNS was able to increase level of mental functioning, i.e., Junior Scrabble, mind games, etc.

Bowel routine has been established, cardiopulmonary status is stable. Urinary incontinence has improved, although patient continues to wear adult incontinence pads. Skin is healed.

MEDICATIONS (at time of discharge)

Dyazide 1 every day
Persantine 25 mg., 1 every day (per General Practitioner)
Surfak 1 as necessary
Elavil 25 md., 1 at bedtime
Trilafom 2 m.g., 1 four times a day (per Psychiatrist)
Cogentin 2 m.g., 1 at bedtime

CASE STUDY #5

This individual is a 65 year old male, living with his wife in a two story older home. Bedroom and bath are on the second floor. Hospital bed and bedside commode were placed on the first floor. There are six steps into the home. No children. Patient is 6'4" and weighs 205 pounds. His physicians included an orthopedic surgeon and a cardiologist.

HEALTH HISTORY

History of CAD, ASCVD, Peripheral Vascular Insufficiency

1978 CHF

1981 Cardiac Catheterization, Left BK Amputation and Revision BK Amputation

1982 Diabetes Mellitus, Right BK Amputation and Revision of Right BK Amputation (secondary to infection)

1983 MI, Recurrent CHF, Bilateral Pleural Effusion

CURRENT MEDICATIONS

Diabinese, 250 mg., 1 q.d.
ASA, 10 gr., p.r.n.
Cardizem, 60 mg., 1 q.i.d.
Lasix, 40 mg., 1 b.i.d.
Capoten, 25 mg., 1/2 tablet t.i.d.
Lanoxin, 0.125 mg., 1 q.d.
Micro-K Extentabs, 1.b.i.d.

CLINICAL COURSE

This individual was admitted to Visiting Nurse Service June, 1982, post hospital and has been admitted to the hospital three times in this time period. His nursing problems were:

1. Newly diagnosed diabetic with lack of understanding of diabetic regime.

2. Unhealed right BK amputation site.
3. Newly dependent patient with highly stressed caregiver (wife) secondary to responsibilities of patient care.

Nursing followed the patient for cardiopulmonary and circulation assessment, dressing changes and stump shaping, diabetic and medication instruction, labwork.

Diet prescription was 1500 calorie ADA no added salt. Minimal diet instruction was done prior to hospital discharge. Physician was contacted and diet changed to NA sugar. Registered Dietitian (RD) made visit to instruct wife and patient on diet. Instructed on basic four nutrition and explained NA sugar diet relating it to family's eating pattern. Encouraged use of multi-vitamin supplement.

Patient was referred to VNS Physical Therapy (PT) for home exercise program. Patient has left BK prosthesis and was capable of transferring independently to bedside commode from bed and back. Patient used a sliding board to get from wheelchair. Patient was not capable of getting out of house. Patient had bilateral knee inflexion contractures of 10 degrees full extension actively and 5 degrees passively. Patient instructed in a stretching program. Patient was instructed in transfers from wheelchair to floor using hassock as a step down. This led to being able to scoot up and down steps. Patient was anxious about the second amputation at first, but as patient became more independent, his attitude improved. Patient was a candidate for permanent prosthesis at time of PT discharge.

Wife has gained understanding of diabetic regime and is following through. Her stress level is much reduced. Stump has healed and cardiopulmonary status is fairly stable. Gets about in a wheelchair most of the time.

jh
10/10/83

Project NNED
CASE STUDY #3

Drugs: M. Haug
R. Gray

Problems	Drugs Possibly Responsible	Integration with other Disciplines	Nursing Implications
. Constipation	Elavil, Trilafon, Cogentin - anticholinergic effects - order surfak as scheduled basis - watch H_2O depletion from dyazide - alternative antidepressants without anticholinergic needs	Exercise - situps, massage Nutrition - juices (fruit), high fiber diets Hydration	Review anticholinergic SX and SX - monitor I/O, hydratic stool frequency - trigger points - appropriate environment - hydrate patients
. Paranoid Ideation	Elavil, Trilafon, cogentin - anticholinergic psychoses	Removal of Rx would increase appetite and increase ambulation	Knowledge of the effec: of anticholinergics - reinforcement of reality - make environment non-fearful and comfortable
. Ataxia, low endurance refusal of rehabilitation	Elavil, Trilafon, Cogentin	Removal of drug decreases ataxia, increases ambulation, decreases falls -Ca++ levels	Progress in ambulation - more willing to go further - set goals for ADL
. Urinary Incontinence with open skin areas	Elavil, Trilafon, Cogentin - drug holiday to see if they need anti-parkinsonism drug	Removal of drug increases ambulation to facilities	Monitor drug holidays
. Weight increase from 136 lbs. to 146 lbs.	Elavil induced weight gain - may become a problem - watch dry mouth	Eating vs. ambulation	Nursing - watch weight and food intake - watch dry mouth affecting food intake

M. Haug
Drugs: R. Gray

Project NNED
CASE STUDY #5

Potential Problems	Integration With Other Disciplines	Nursing Implications
1. Drug interaction with Diabinese with ASA causes decreased blood sugar.	Diet management the cornerstone of treatment. Insulin kept in balance of food and fluid intake. Insulin kept in balance of exercise.	Monitor dosage of diabinese according to blood sugar. Method of monitoring blood sugar. Watch for hypoglycemic effect which aspirin may increase. Monitor for other side effects of diabinese: -muscle cramps, seizures, fatigue, weakness -3 to 5 days supervision for hypoglycemic reactions due to prolonged half-life
2. Cardizem and Lanoxin may increase Lanoxin levels.	High calcium diet negates cardizem effects.	Assess patient for: -bradycardia and/or arrhythmias. (decreased 60 pulse withhold drug); pulse deficit; signs CHF; weight gain; hydration; I & O Provide patient: -increased K+ diet if given with a diuretic Space doses of any antiacids 6 hours apart from Lanoxin to prevent decreased absorption of Lanoxin. Assess patient for improved cardiac rate and rhythm, and respirations.

Potential Problems	Integration With Other Disciplines	Nursing Implications
3. Drug interaction of Capoten and Micro-K Extentabs = increased K+ for ACE inhibition	Hydration Avoid foods high in K+	Awareness of hypotensive signs Awareness of patient's renal integrity Assessment for: Dermatologic problems; GI irritation; urinary frequency; malaise; fatigue; dizziness; headache; cardiac irregularity. Teach patient to: -take Capoten 1 hour a.c. to negate food interference with absorption -avoid sudden changes in posture to decrease dizziness
4. Capoten can cause ageusia	Awareness of loss of appetite	Assess patient for decrease or loss of taste perception.
5. Lasix could exacerbate diabetes		Monitor for signs of diabetes
6. Recurrent CHF due to patient non-compliance with medications 7. Not taking Lasix could exacerbate recurrent CHF	Reduce Na+ diet	Monitor intake of K+ Teach patient: Increase foods rich in K+ such as orange juice, bananas
8. Recurrent CHF	Monitor I & O Decrease in Na foods	Monitor patient for: -med. taken in correct dose and at same time each day -slowing of pulse & irregular rhythm -no OTC meds -color perception changes in vision, if taking digoxin -hepatic and renal dysfunction

Project NNED
Pre-test*

	Not at all knowledgeab	A little bit knowledgeab	Somewhat knowledgeable	Knowledgeable	Very knowledgeable	Not important	A little bit important	Somewhat important	Important	Very important
Exercise										
1. How knowledgeable are you about the benefits of an active life style?										
2. How knowledgeable are you about evaluating the physical capacity of an aging individual?										
3. How knowledgeable are you about how hard an older adult should exercise (intensity, frequency, duration)?										
4. How knowledgeable are you about identifying the most appropriate exercise for an older adult?										
5. How knowledgeable are you about exercise programs for an older adult?										
6. How knowledgeable are you about each of the following as it relates to exercise in the older adult:										
a.) Hypertension										
b.) Cardiovascular disease										
c.) Pulmonary disease										
d.) Arthritis										
Nutrition										
7. How knowledgeable are you about physiological changes which occur with aging?										
8. How knowledgeable are you about the nutritional loss which occurs with aging?										
9. How knowledgeable are you about how nutritional changes affect the health of the elderly?										
10. How knowledgeable are you about the factors which affect the nutritional process in the elderly?										

Project NNED
Pre-test*
Page 2.

Nutrition (Cont'd.)

	Not at all knowledgeab	A little bit knowledgeab	Somewhat knowledgeable	Knowledgeable	Very knowledgeable		Not Important	A little bit important	Somewhat important	Important	Very important
11. How knowledgeable are you about recommended dietary allowances for nutrients for the elderly?											
12. How knowledgeable are you about assessing the nutritional status of the elderly?											
Nursing/Drugs											
13. How knowledgeable are you about the magnitude of geriatric drug usage?											
14. How knowledgeable are your about the incidence of adverse drug reactions in the elderly?											
15. How knowledgeable are you about factors influencing the response to drugs in the elderly?											
16. How knowledgeable are you about absorption, distribution, metabolism, and excretion (ADME) as it relates to age changes in the physiological functioning of the:											
a.) GI track											
b.) Distribution of drugs											
c.) Metabolism of drugs											
d.) Elimination of drugs											

*Created for Project NNED by Isadore Newman and Ronald Bobner

Project NNED
Post-test*

	Not at all knowledgeable	A little bit knowledgeable	Somewhat knowledgeable	Knowledgeable	Very knowledgeable	Not important	A little bit important	Somewhat important	Important	Very important	How effectively was information conveyed? Not effective	Somewhat effective	Effective	Very effective	How useful to you as a practitioner was the information? Not useful	Somewhat useful	Useful	Very useful
Exercise																		
1. How knowledgeable are you about the benefits of an active life style?																		
2. How knowledgeable are you about the physical capacity of an aging individual?																		
3. How knowledgeable are you about how hard an older adult should exercise (intensity, frequency, duration)?																		
4. How knowledgeable are you about identifying the most appropriate exercise for an older adult?																		
5. How knowledgeable are you about exercise programs for older adults?																		
6. How knowledgeable are you about each of the following as it relates to exercise in the older adult:																		
a.) Hypertension																		
b.) Cardiovascular disease																		
c.) Pulmonary disease																		
d.) Arthritis																		
Nutrition																		
7. How knowledgeable are you about common physiological changes which occur with aging?																		

Project NNED
Post-test*
Page 2.

	Not at all knowledgeable	A little bit knowledgeable	Somewhat knowledgeable	Knowledgeable	Very knowledgeable	Not important	A little bit important	Somewhat important	Important	Very important	How effectively was information conveyed? Not effective	Somewhat effective	Effective	Very effective	How useful to you as a practitioner was the information? Not useful	Somewhat useful	Useful	Very useful
Nutrition (Cont'd.)																		
8. How knowledgeable are you about the nutritional loss which occurs with aging?																		
9. How knowledgeable are you about how nutritional changes affect the health of the elderly?																		
10. How knowledgeable are you about the factors which affect the nutritional process in the elderly?																		
11. How knowledgeable are you about recommended dietary allowances for nutrients for the elderly?																		
12. How knowledgeable are you about assessing the nutritional status of the elderly?																		
Nursing/Drugs																		
13. How knowledgeable are you about the magnitude of geriatric drug usage?																		
14. How knowledgeable are you about the incidence of adverse drug reactions in the elderly?																		
15. How knowledgeable are you about factors influencing the response to drugs in the elderly?																		

Project NNED
Post-test*
Page 3.

Nursing/Drugs (Cont'd.)

16. How knowledgeable are your about absorption, distribution, metabolism, and excretion (ADME) as it relates to age changes in the physiological function of the:
    a.) GI Track
    b.) Distribution of drugs
    c.) Metabolism of drugs
    d.) Elimination of drugs

	Not at all knowledgeable	A little bit knowledgeable	Somewhat knowledgeable	Knowledgeable	Very knowledgeable	Not important	A little bit important	Somewhat important	Important	Very important	How effectively was information conveyed? Not effective	Somewhat effective	Effective	Very effective	How useful to you as a practitioner was the information? Not useful	Somewhat useful	Useful	Very useful
a.)																		
b.)																		
c.)																		
d.)																		

17. How useful do you think the handouts will be to you:

	Not at all useful	Somewhat useful	Useful	Very useful
a.) Nutrition & the elderly Question Format Outline				
b.) Nutrition & the elderly Bibliography				
c.) Article - Dietary guidelines for the elderly				
d.) Article - Nutrition, Aging, and the Aged				
e.) Exercise - Presentation Outline				
f.) Article - Physical Activity Prescription for the Older Adult				
g.) Increased Incidence of Side-effects with Increasing Age				

	Not at all useful	Somewhat useful	Useful	Very useful
17. h.) Signs and Symptoms Identification of Adverse Reactions to Drugs in the Elderly				
i.) Drugs - Bibliography				
j.) Drug Usage and Factors Influencing Response to Drugs in the Elderly				
k.) Case Study #3				

*Created for Project NNED by Isadore Newman and Ronald Bobner

MLS:jh
11/22/83

ABSTRACT

This integrated curriculum project was both a multidisciplinary and interdisciplinary effort which included experts in the areas of Exercise Physiology, Behavorial Science, Nursing, Pharmacology, Nutrition, Curriculum Development and Evaluation, and Family Medicine. The funded project was in response to the identification by researchers, academicians, and health maintenance personnel of the need to arm health care providers with more appropriate and integrated information about drugs, nutrition and exercise as a means of enabling them to enhance health maintenance of the elderly.

It was determined that weaknesses exist in many health professions education programs. To assist in strengthening these curriculi, identification and utilization of the relationships and interrelationships of nutrition, exercise and drug benefits was undertaken. Specifically, the objectives were to:

(1) Demonstrate the integration of nursing, exercise and drugs in a health profession's curriculum and document references that can be used to strengthen health professions' existing curriculi and/or develop new ones.

2) Demonstrate through case study approachs how a less intrusive treatment modality than that which is currently used is functional in prescribing care for the elderly.

From the integrated curriculum, pilot programs were developed for health care providers who work with the elderly. These pilot programs emphasized the current state of knowledge in nursing, nutrition, exercise and drug utilization, and focused on the interaction of each with the others.

Two major beliefs were validated throughout this project. First was that an integrated curriculum is more valuable than a curriculum utilizing concepts taught in isolation. Second was that a health professions student achieves greater insight through an interdisciplinary approach to teaching and learning.

Hippocrates, the Father of Medicine, said that the treatment of the human body should not be worse than the illness. Florence Nightingale commanded, "At least, do the sick no harm." Treatment modalities should provide the least intrusive approach to the care of a patient. This interdisciplinary and integrated curriculum approach almost forces the care giver of the elderly to look at viable treatment alternatives in a hierarchial fashion before prescribing and initiating care.

Continuation - Future:

The data, knowledge, and skill bases resultant from Project NNED will be utilized to develop a Well Elderly Integrated Training Project as the next phase of this program. The project will develop a model pilot program of selecting and training well elderly role models (trainers) in good health practices. A group of multidisciplinary experts will train the trainers in assisting the well elderly to maintain independent living and their state of health on the aging and wellness curve. Risk appraisal and health assessment will identify the current health status of participants and control group, referrals will be made where applicable, and a motivational regimen of activities and education will be developed for each participant.

Alternatives to utilization of drugs will be emphasized where practical, applicable, and appropriate.

Charting of self-progress and maintenance and other motivational techniques will be utilized. The Resource Faculty will work with Trainers and participants on an on-going basis. Trainers will be well elderly role models, or retired/active health care practitioners/ educators who will be supported by physicians-in-training, and/or nursing, dietetic and exercise students.

Students will also develop presentations and instructional packages from this experience. Training sites for the well elderly inter-disciplinary project include apartment and individual housing settings in urban/rural Northeast Ohio. Also, municipal and privately organized programs for senior citizens held in community/recreation centers will be used.

PROGRAM GOALS

* Develop an integrated curriculum using nursing, pharmacology, nutrition, stress, and exercise concepts, and demonstrate care modalities based on this curriculum.

* Use appropriate measuring techniques to validate the success of the proposed curriculum and suggest how it might be incorporated effectively in health professions education.

* Develop a pilot model which utilizes a team approach in teaching health care with an integrated curriculum.

* Facilitate behavioral changes in health professionals' clinical methods of providing health care to the elderly, so as to reduce the cost of such care and reduce the elderly population's dependency on drugs.